Amendments

In the Claims:

The following listing will replace all prior listings of the claims:

Claims 1-85 (Cancelled).

Claim 86 (Previously presented). A composition comprising:

(a) a non-natural molecular scaffold comprising:

(i) a virus-like particle that is a dimer or a multimer of a polypeptide comprising, as a core particle, a polypeptide having the amino acid sequence of SEQ ID NO:158, modified such that the cysteine residues at positions 48 and 110 of SEQ ID NO:158 (corresponding to positions 48 and 107 of SEQ ID NO:134) are either deleted or substituted with another amino acid, or a sequence having at least 90% sequence identity to said polypeptide sequence and in which the cysteine residues at positions 48 and 110 of SEQ ID NO:158 are either deleted or substituted with another amino acid; and

(ii) an organizer comprising at least one first attachment site, wherein said organizer is connected to said core particle by at least one covalent bond; and

(b) an antigen or antigenic determinant with at least one second attachment site, said second attachment site being selected from the group consisting of:

(i) an attachment site not naturally occurring with said antigen or antigenic determinant; and

(ii) an attachment site naturally occurring with said antigen or antigenic determinant,

wherein said second attachment site is capable of association through at least one non-peptide bond to said first attachment site; and

wherein said antigen or antigenic determinant and said scaffold interact through said association to form an ordered and repetitive antigen array.

Claims 87-89. (Cancelled).

Claim 90 (Previously presented). The composition of claim 86, wherein said organizer is a polypeptide or residue thereof; and wherein said second attachment site is a polypeptide or residue thereof.

Claim 91 (Previously presented). The composition of claim 86, wherein said first and/or said second attachment sites comprise:

(a) an antigen and an antibody or antibody fragment thereto;

(b) biotin and avidin;

(c) strepavidin and biotin;

(d) a receptor and its ligand;

(e) a ligand-binding protein and its ligand;

(f) interacting leucine zipper polypeptides;

(g) an amino group and a chemical group reactive thereto;

(h) a carboxyl group and a chemical group reactive thereto;

(i) a sulfhydryl group and a chemical group reactive thereto; or

(j) a combination thereof.

Claim 92 (Previously presented). The composition of claim 91, wherein said first attachment site is an amino group and said second attachment site is a sulfhydryl group.

Claim 93 (Previously presented). The composition of claim 86, wherein said antigen or antigenic determinant is selected from the group consisting of:

(a) an antigen suited to induce an immune response against bacteria;

(b) an antigen suited to induce an immune response against viruses;

(c) an antigen suited to induce an immune response against parasites;

(d) an antigen suited to induce an immune response against cancer cells;

(e) an antigen suited to induce an immune response against allergens;

(f) an antigen suited to induce an immune response in a farm animals; and

(g) a protein suited to induce an immune response in a pet.

Claim 94 (Previously presented). The composition of claim 93, wherein the antigen or antigenic determinant is a protein, polypeptide, or a fragment thereof.

Claim 95 (Previously presented). The composition of claim 93, wherein said antigen or antigenic determinant induces an immune response against one or more allergens.

Claim 96 (Previously presented). The composition of claim 93, wherein said antigen or antigenic determinant is selected from the group consisting of:

(a) a recombinant protein of HIV;

(b) a recombinant protein of Influenza virus;

(c) a recombinant protein of Hepatitis C virus;

(d) a recombinant protein of Toxoplasma;

(e) a recombinant protein of Plasmodium falciparum;

(f) a recombinant protein of Plasmodium vivax;

(g) a recombinant protein of Plasmodium ovale;

(h) a recombinant protein of Plasmodium malariae;

(i) a recombinant protein of breast cancer cells;

(j) a recombinant protein of kidney cancer cells;

(k) a recombinant protein of prostate cancer cells;

(l) a recombinant protein of skin cancer cells;

(m) a recombinant protein of brain cancer cells;

(n) a recombinant protein of leukemia cells;

(o) a recombinant protein of bee sting allergy;

(p) a recombinant protein of nut allergy;

(q) a recombinant protein of food allergies;

(r) a recombinant protein of asthma; and

(s) a recombinant protein of Chlamydia.

Claim 97 (Previously presented). A pharmaceutical composition comprising the composition of claim 86, and a pharmaceutically acceptable carrier.

Claim 98 (Currently amended). ~~A vaccine~~ An immunogenic composition comprising the composition of claim 86.

Claim 99 (Currently amended). The ~~vaccine~~ immunogenic composition of claim 98, further comprising at least one adjuvant.

Claim 100 (Currently amended). A method of immunizing, comprising administering to a subject the ~~vaccine~~ immunogenic composition of claim 98.

Claim 101 (Previously presented). The method of claim 100, wherein said administering produces an immune response.

Claim 102 (Previously presented). The method of claim 101, wherein said administering produces a humoral immune response.

Claim 103 (Previously presented). The method of claim 101, wherein said administering produces a cellular immune response.

Claim 104 (Previously presented). The method of claim 101, wherein said administering produces a humoral immune response and a cellular immune response.

Claim 105 (Previously presented). The method of claim 101, wherein said administering produces a protective immune response.

Claim 106 (Previously presented). A method of making the composition of claim 86, comprising combining said non-natural molecular scaffold and said antigen or antigenic determinant, wherein said non-natural molecular scaffold and said antigen or antigenic determinant interact to form an antigen array.

Claim 107 (Previously presented). The method of claim 106, wherein said antigen array is ordered and/or repetitive.

Claim 108 (Currently amended). A method of immunizing, comprising administering the composition of claim 86, or the ~~vaccine~~ immunogenic composition of claim 98, to a subject, wherein said administering produces a Th2 response that is specific for said antigen or antigenic determinant.

Claim 109 (Previously presented). The method of claim 108, wherein antibodies specific for said antigen or antigenic determinant of a subtype corresponding to the Th2 subtype are induced in the subject.

Claim 110 (Previously presented). The method of claim 108, wherein the subject does not generate a Th1 response that is specific for said antigen or antigenic determinant.

Claim 111 (New). A vaccine composition comprising the composition of claim 86.

Claim 112 (New). The vaccine composition of claim 111, further comprising at least one adjuvant.